

Attenuated Microorganism Strains and Their Uses**Abstract**

This application relates to the use of attenuated prokaryotic microorganism strains (such as *Salmonella*) expressing nucleic acid encoding HPV proteins as vaccines against HPV infection and the associated increased risk of cancer. In particular, the work shows that it is possible to assemble VLPs in a prokaryotic organism and that nasal immunization of mice with the strains HPV-specific conformationally dependent and neutralizing antibodies in serum and genital secretions. The experiments described herein show that it is also possible to assemble chimeric VLPs of a HPV including a fusion partner and that tumour protection can be induced.